



GTAP Conference
June 2021

**On the optimality of Common External
Tariffs in Africa: Evidence from the EAC
Customs Union**

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- More and more RTAs are being implemented (January 1, 2021: 305 in force)
- Customs unions less analyzed.
- Choice of the common external tariff (CET)
- Research applied to Africa
- In Africa, 4 customs unions in force:
 - Economic Community of West African States (ECOWAS),
 - Economic and Monetary Community of Central Africa (CEMAC),
 - Southern African Customs Union (SACU),
 - East African Community (EAC).

- Level of the CET for these RECs designed:
 - to improve competitiveness,
 - facilitate industrialization,
 - and boost economic growth.
- In general, results of a political compromise between Member States
- Not the result of a thorough assessment.
- Objective of this paper: assessing the optimality of the current CET structure for EAC
- EAC=one of the most dynamic customs unions in Africa in terms of trade integration.

- Viner (1950), Lipsey and Lancaster (1956) and Lipsey (1957): a CU is not necessarily welfare-improving.
- Second-best theory: facing one distortion (CET), the removal of other distortions (REC's internal tariffs) can reduce welfare (Vousden, 2003).
- Kemp and Wan (1976): if lump sum transfers are possible between members in the union, the CET can be chosen appropriately to set up a welfare-improving agreement
- Here comparison of current CET with:
 - REC's welfare-maximizing CET
 - Each member's welfare maximizing CET
 - Each member's welfare maximizing tariff

- Use of MIRAGODEP: dynamic multi-country multi-sector Computable General Equilibrium (CGE) model based on the MIRAGE model
- Our scenarios involve trade flows at the detailed (HS6) level: to avoid endogeneity bias and capture properly the welfare impacts, Consistent Aggregator Approach of Laborde et al. (2016)
 - Approach based on previous work by Anderson and Neary (2003) and Anderson and Neary (2005);
 - Considers the variance of tariffs at the product level
 - Gives unbiased welfare estimates.
- The Social Accounting Matrixes (SAM) and trade data in MIRAGRODEP are based on GTAP 10 (Aguilar et al., 2019).

- **Main features of MIRAGODEP**

- Perfect competition in all sectors
- Government income = taxes collected on production, on factors of production, on exports, on imports, on consumption, and on households' income
- The government maximizes a Cobb-Douglas utility function
- Private account closure assumption: savings determine investment
- External account closure: adjustment of the real exchange rate to keep the current account fixed in % of GDP
- Public account closure: a consumption tax is adjusted to maintain real public expenses per capita constant while public sold is constant in percentage of GDP

- **Important assumption**

- We assume that the optimal common external tariff will keep three tariff bands and the same distribution of HS6 lines in these three bands as the current distribution

1. Introduction – **2. Methodology** – 3. State of the play in EAC – 4. Scenarios and results – 5. Conclusion

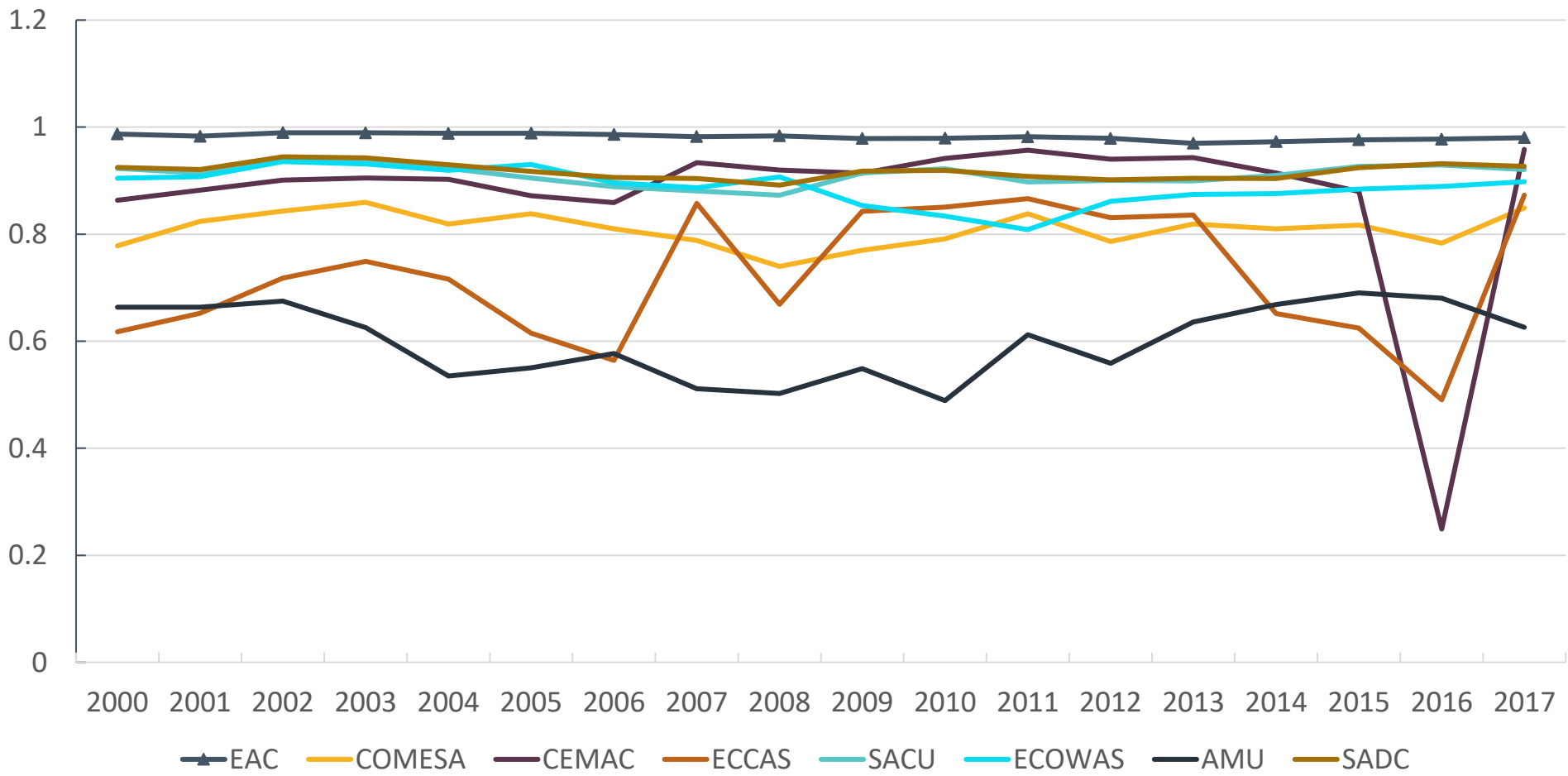
#	Model sector	GTAP sector	Label
1	BevTobacco	b_t	Beverages and Tobacco
2	Cgoods	ele, omf	Manufacture of computers and electronic products, furniture
3	chm	chm, bph, rpp	Chemical products, pharmaceuticals, rubber and plastics
4	Dairy	rmk, mil	Dairy
5	Energy	coa, oil, gas, p_c, ely, gdt	Energy
6	Fisheries	fsh	Fisheries
7	Forestry	frs	Forestry
8	Igoods	nmm, i_s, nfm, fmp	Manufacture of metal and mineral products
9	Kgoods	mvh, otn, eeq, ome	Vehicles and parts, Machinery and electrical equipment
10	Meat	ctl, oap, wol, cmt, omt	Animals and animal products
11	NBSERV	ros, osg, edu, hht, dwe	Arts, Public Administration, Education, Health and social work
12	OthCrops	c_b, pfb, ocr	Other crops
13	othFood	vol, ofd	Vegetables oils and fats, Other food products
14	Paper	ppp	Paper products, publishing
15	Primary	oxt	Mining
16	Rice	pdr, pcr	Rice
17	SERV	wtr, cns, afs, cmn, whs, ofi, ins, rsa	Services
18	Staples	wht, gro, osd	Staples
19	Sugar	sgr	Sugar
20	TRAD	trd	Trade
21	TRAN	otp, wtp, atp	Transport
22	VegFruits	v_f	Vegetables, fruit, nuts
23	WearApp	tex, wap, lea	Wearing, Apparel, Leather products
24	Wood	lum	Wood products

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#	Model Code	Label	GTAP regions
1	AFRICA EAST	East of Africa	ETH, MDG, MOZ, MUS, MWI, ZMB, ZWE
2	AFRICANORTH	North of Africa	EGY, MAR, TUN, XNF
3	AFRICASOUTH	South of Africa	BWA, NAM, ZAF, XSC
4	AMERICA	America	ARG, BOL, BRA, CAN, CHL, COL, CRI, DOM, ECU, GTM, HND, JAM, MEX, NIC, PAN, PER, PRI, PRY, SLV, TTO, URY, USA, VEN, XNA, XSM, XCA, XCB, XTW
5	ASIA	Asia	BGD, BRN, CHN, HKG, IDN, IND, JPN, KHM, KOR, LAO, LKA, MNG, MYS, NPL, PAK, PHL, SGP, THA, TWN, VNM, XEA, XSE, XSA
6	CEMAC	CEMAC	CMR, XCF, XAC
7	CIS	CIS	ARM, AZE, GEO, KAZ, KGZ, RUS, SRB, TJK, UKR, XEE, XER, XSU
8	EAC_KEN	Kenya	KEN
9	EAC_OTH	Other EAC	XEC
10	EAC_RWA	Rwanda	RWA
11	EAC_TZA	Tanzania	TZA
12	EAC_UGA	Uganda	UGA
13	ECOWAS	ECOWAS	BEN, BFA, CIV, GHA, GIN, NGA, SEN, TGO, XWF
14	EUROPE	Europe	ALB, AUT, BEL, BGR, BLR, CHE, CYP, CZE, DEU, DNK, ESP, EST, FIN, FRA, GBR, GRC, HRV, HUN, IRL, ITA, LTU, LUX, LVA, MLT, NLD, NOR, POL, PRT, ROU, SVK, SVN, SWE, XEF
15	MEAST	Middle-East	ARE, BHR, IRN, ISR, JOR, KWT, OMN, QAT, SAU, TUR, XWS
16	OCEANIA	Oceania	AUS, NZL, XOC



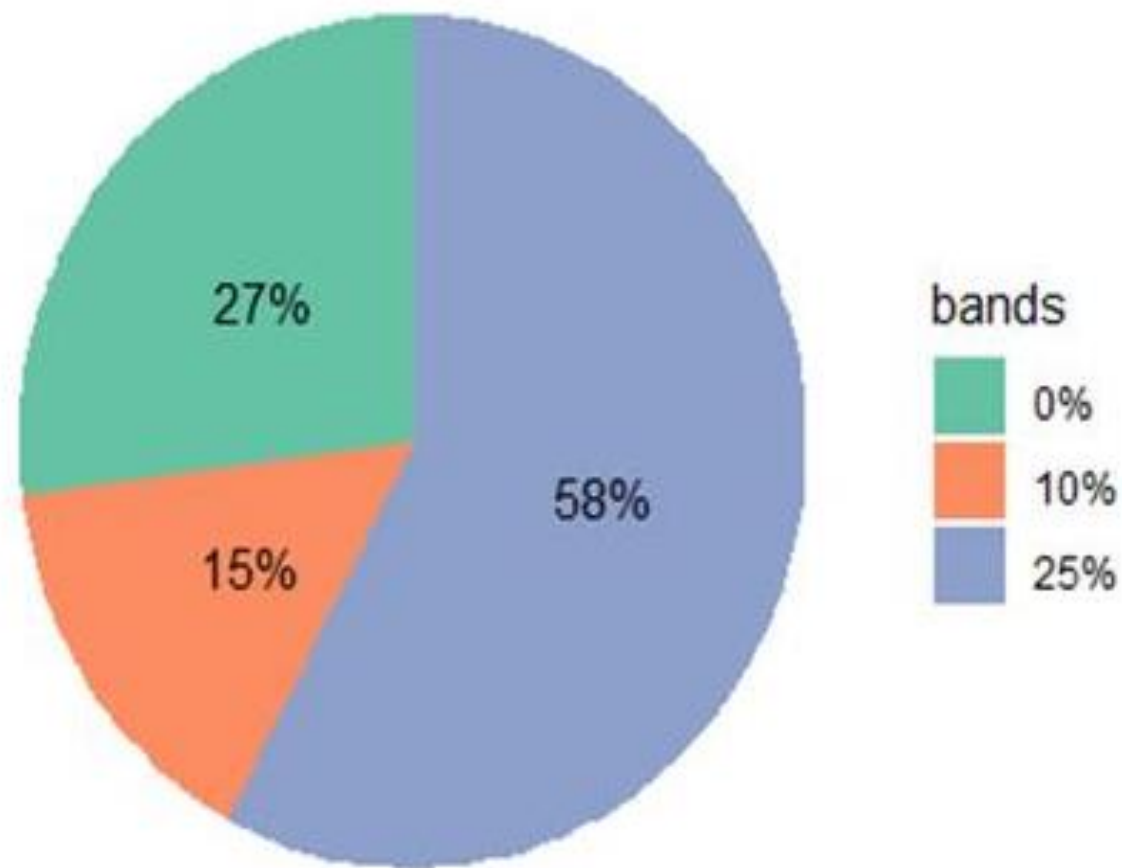
- Regional trade introversion index – 2000/2017**

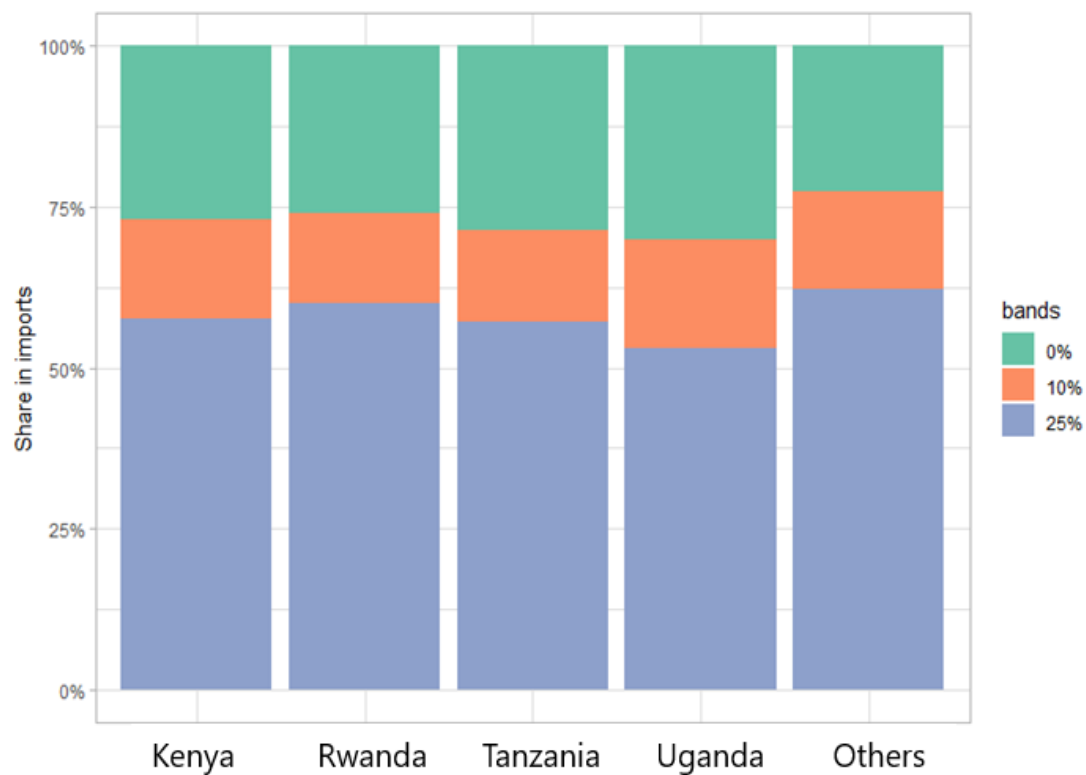


Percentage of duties	Goods description
0%	Raw materials and capital goods
10%	Semi-processed goods and inputs
25%	Finished goods

- **Structure of EAC common external tariff**

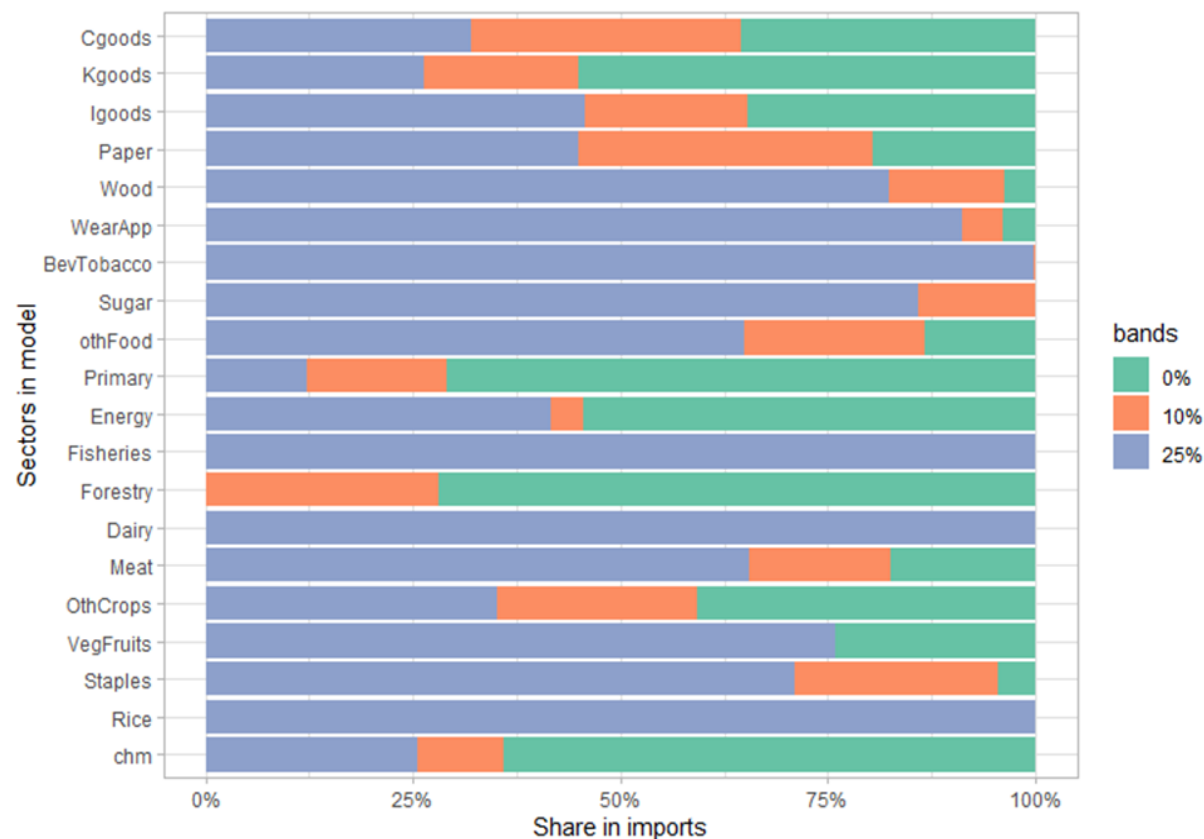
- **Distribution EAC's imports by band**





- **Distribution of imports by band and country**

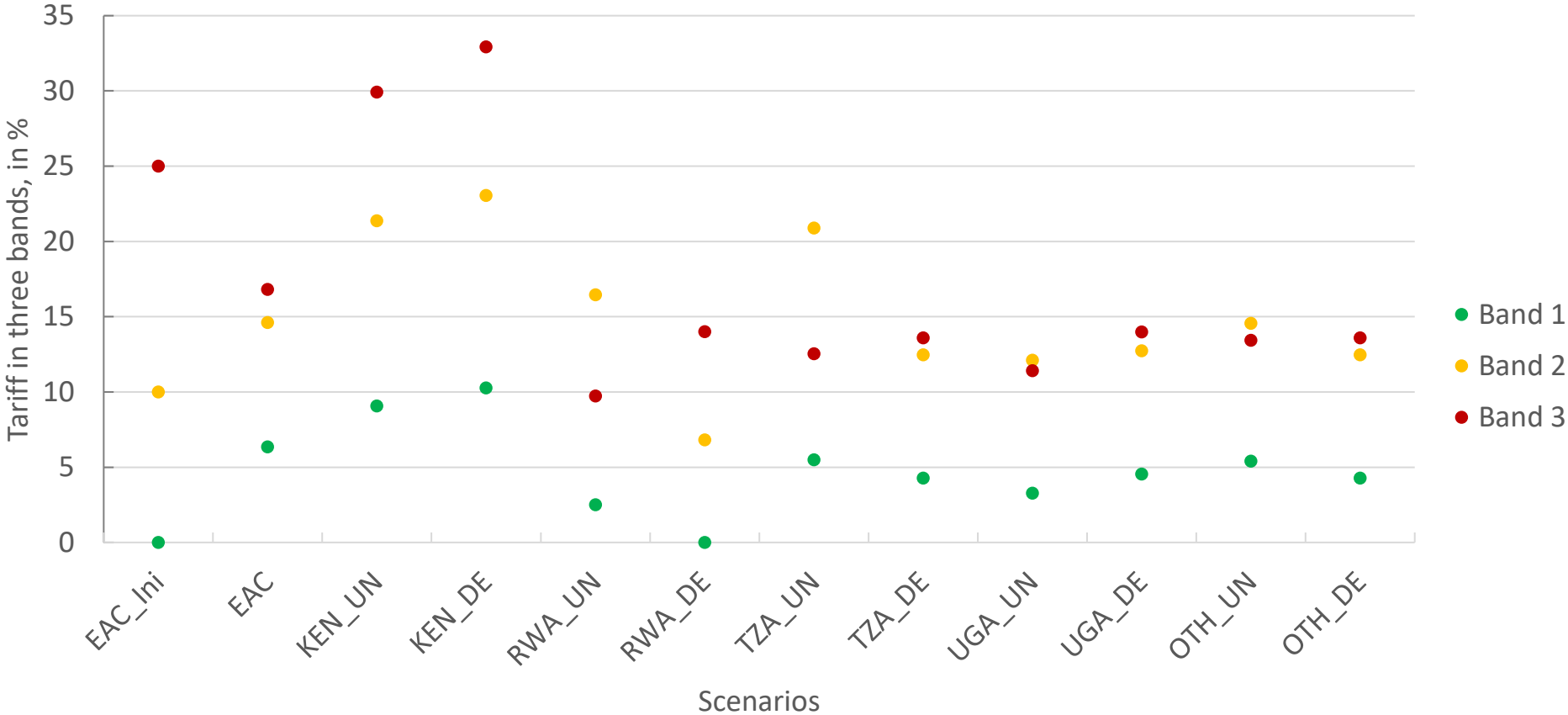
- **Distribution of imports by band for each sector**



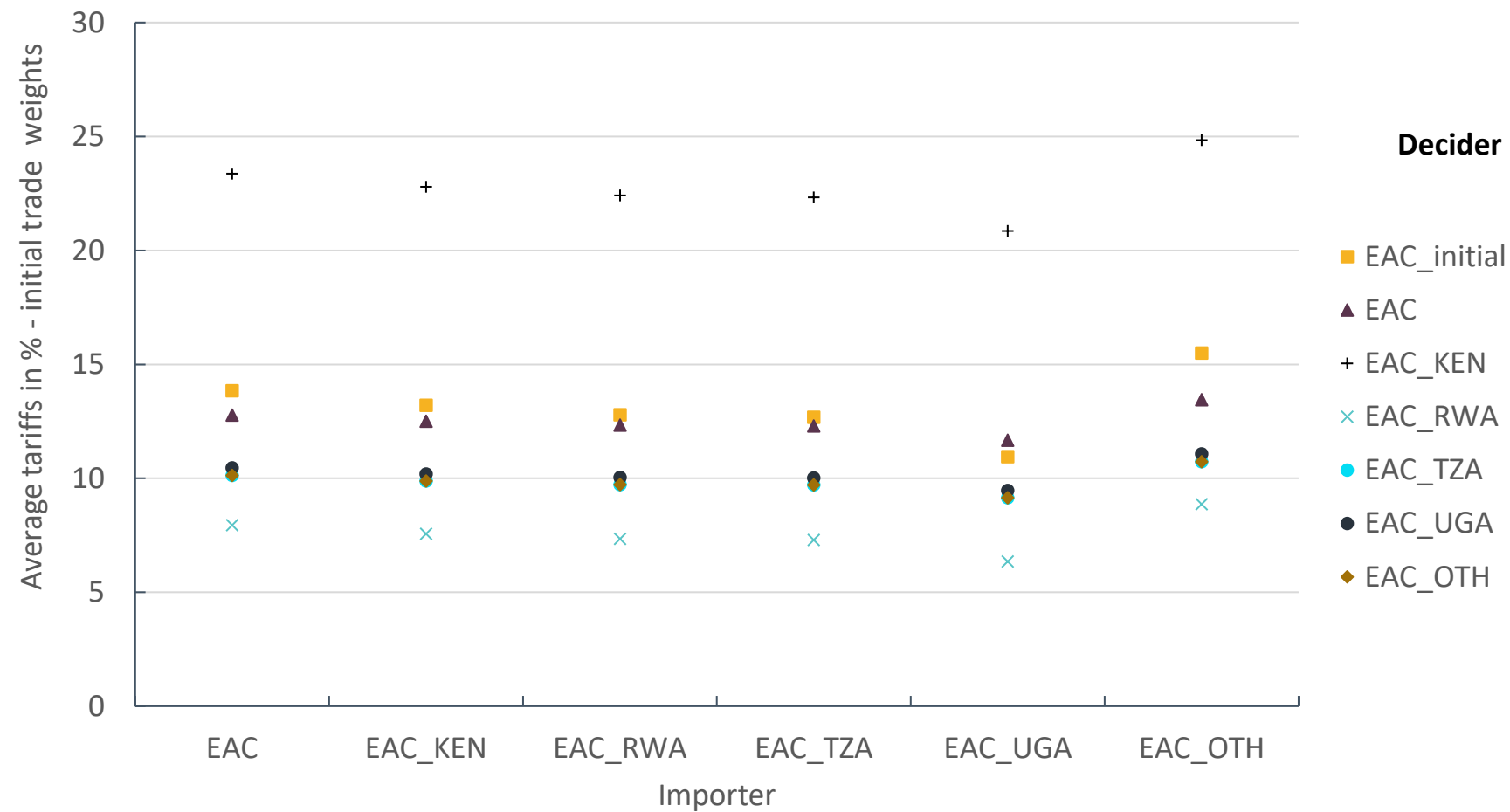
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- r is an EAC country ($r \in \{KEN; RWA; TZA; UGA; Oth\}$),
- t_r^k the tariff that country r applies on band k ,
- t_{CET}^k the tariff that the EAC customs union applied on band k
- Let W_r be the welfare of country r ; W_{EAC} the welfare of EAC: $W_{EAC} = \sum_r W_r$
- **Unilateral scenarios:** each r chooses its own optimal tariffs t_r^k that maximize its own welfare W_r while other EAC countries keep the initial tariff structure (r_{UN})
- **Delegation scenarios:** each EAC r chooses t_{CET}^k that maximize its own welfare W_r (r_{DE})
- **EAC scenario:** a central institution chooses EAC's common external tariffs t_{CET}^k that maximizes EAC's welfare, W_{EAC}
- As EAC is a **common market**, we also compute optimal common external tariffs when productive factors (capital and labor) are perfectly mobile between EAC countries

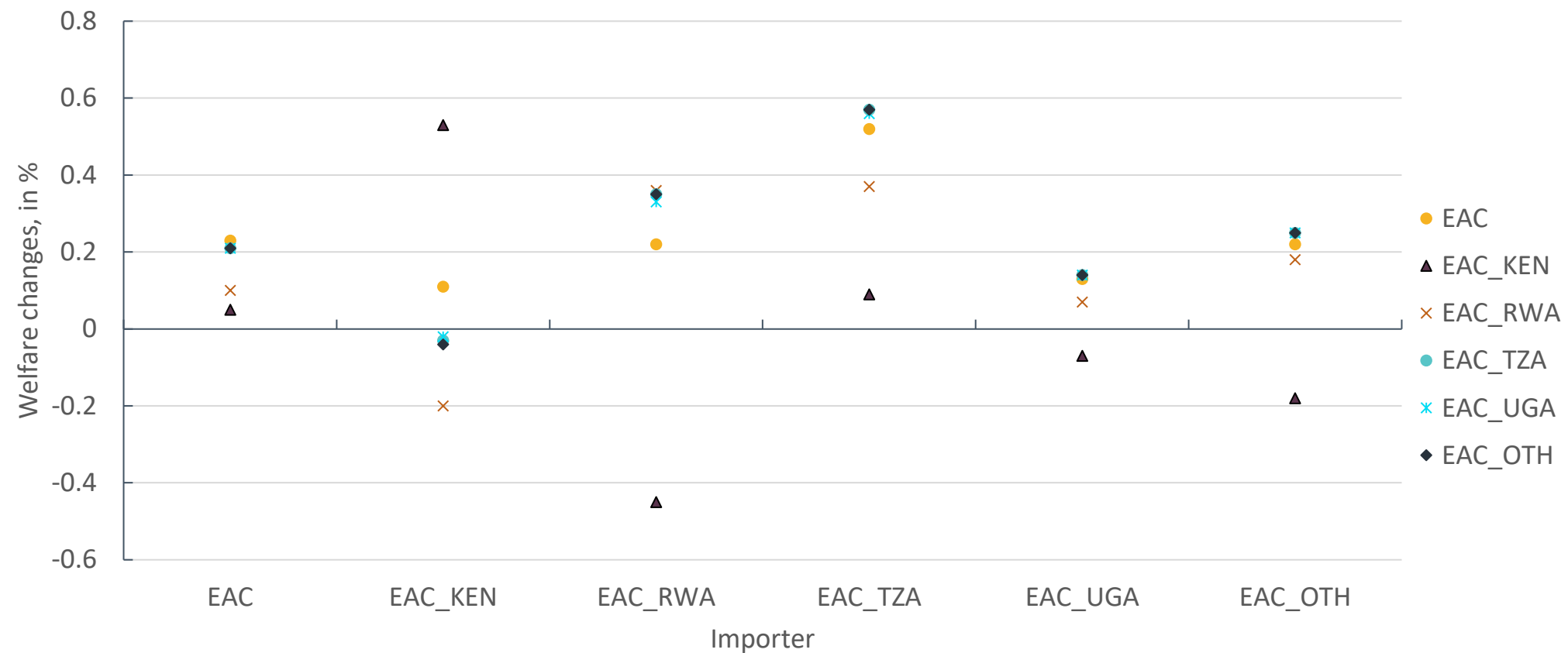
- Optimal common external tariffs



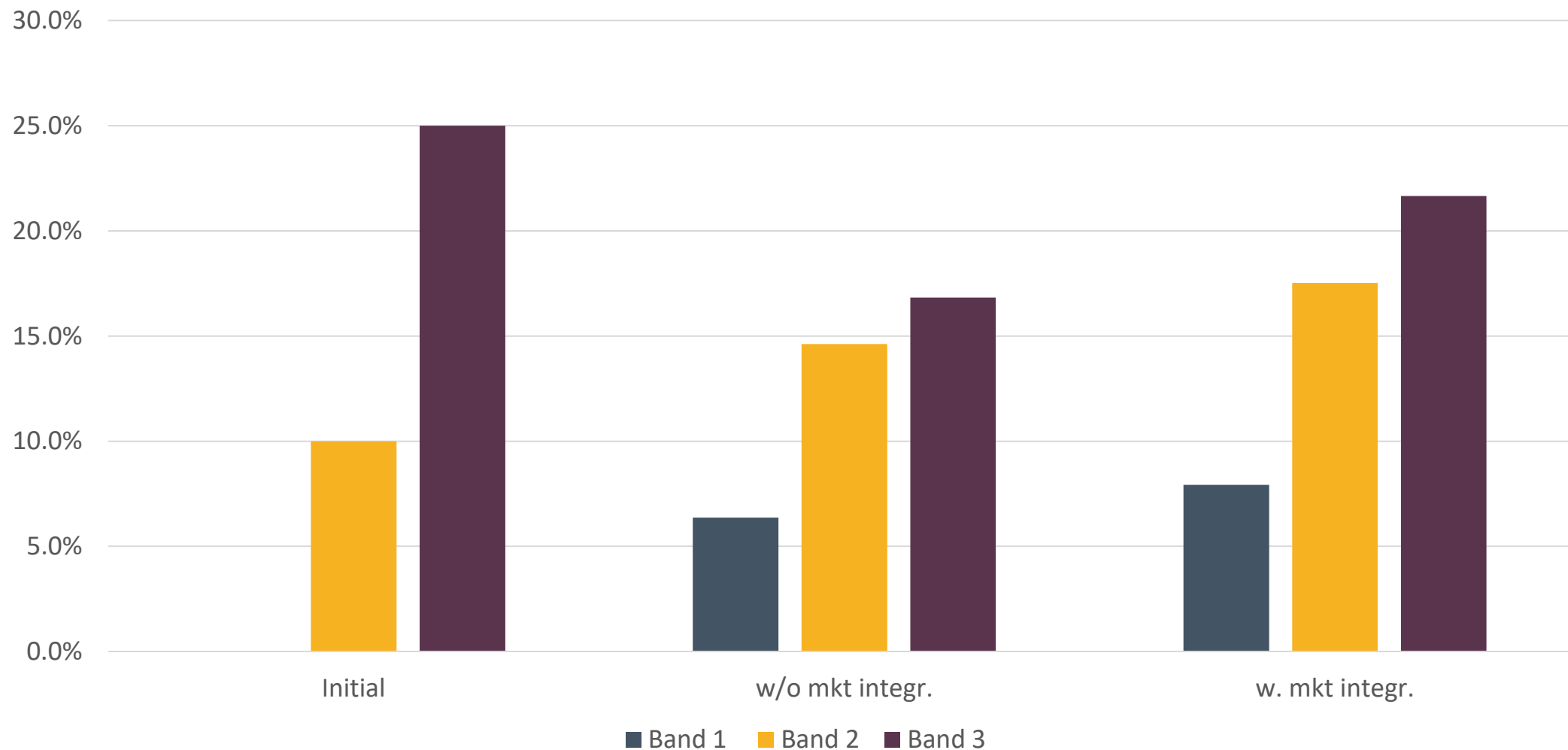
- Average of optimal tariffs in each scenario**



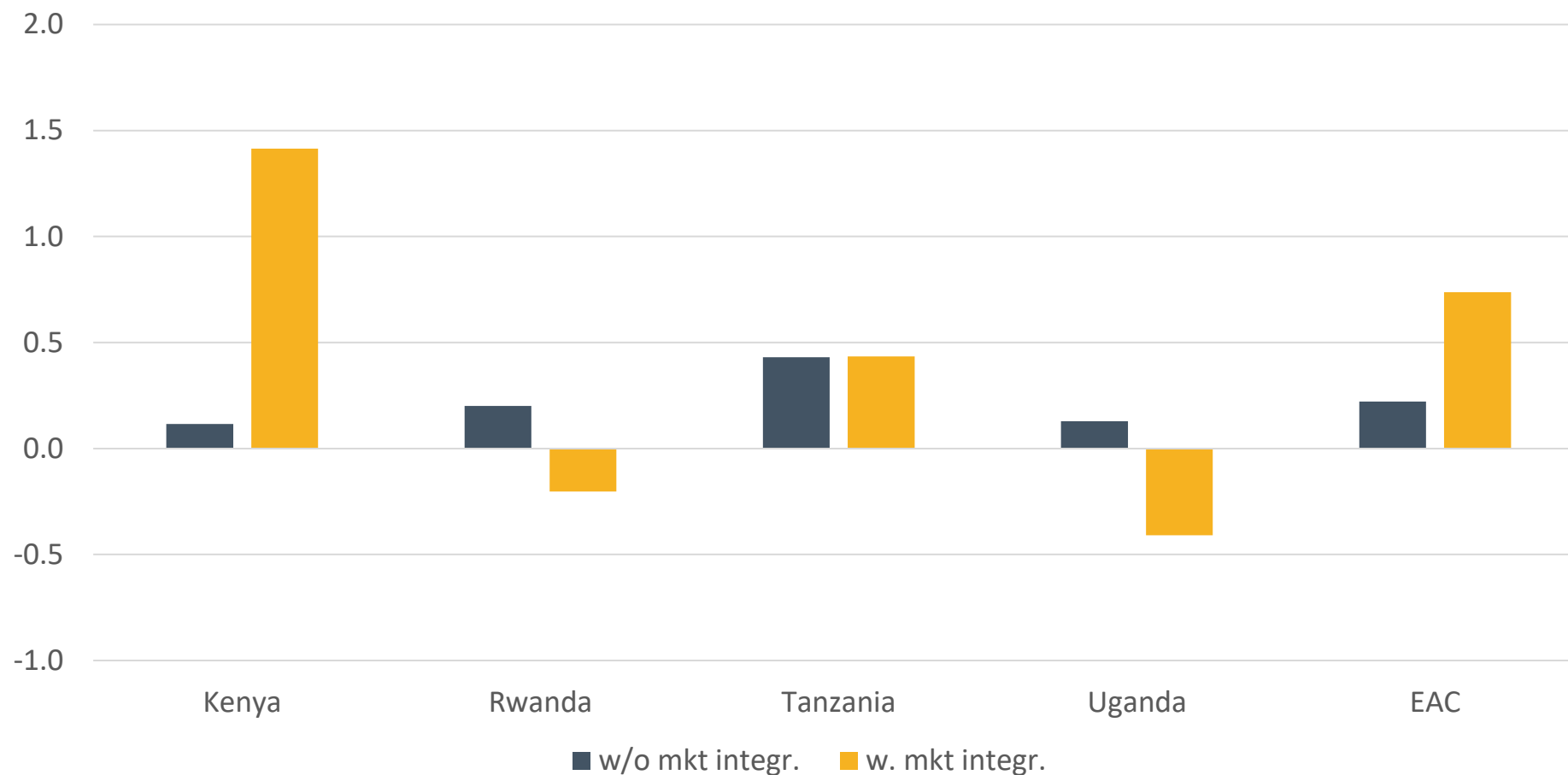
- Rates of variation of welfare associated with all scenarios**



- **Optimal common external tariffs with and without factor market integration**



- **Welfare changes from a Common External Tariff, with and without factor market integration**



- **Choice of CET in a Customs Unions: a difficult issue**
 - Divergence of interests: large country vs. small country
 - ... or between countries depending on their specialization
 - Are factor markets perfectly integrated or not?
- **A CET maximizing REC's welfare is possible but it needs lump-sum transfers**
- **Lump-sum transfers may be difficult to implement**
- **Choice of CET may be the outcome of political compromises**
- **These compromises may be even more difficult to reach at the level of continent**